

File 155:MEDLINE(R) 1966-2003/Jun W5

Set	Items	Description
S1	1138	NUCLEUS()PULPOSUS
S2	72452	PROBES
S3	4	S1(S)S2
S4	78904	PROBE
S5	17	S1(S)S4
S6	2024265	THERAP?/DE OR TREATMENT?/DE
S7	1	S5 AND S6

3/6,K/1

DIALOG(R)File 155:(c) format only 2003 The Dialog Corp. All rts. reserv.
11231675 98109015 PMID: 9447709

Detection and distribution of the carbohydrate binding protein galectin-3 in human notochord, intervertebral disc and chordoma.

Dec 1997

... remnants. By means of Western blots, the expression of galectin-3 was confirmed in tissue **probes** from the vertebral column region beginning with the 8th gestational week. These results were supported...

... age. A persisting notochordal remnant in an adult intervertebral disc and various cells of the **nucleus pulposus** also contained galectin-3. All chordomas showed moderate or strong immunoreactivity irrespective of their cellular...

3/6,K/2

DIALOG(R)File 155:(c) format only 2003 The Dialog Corp. All rts. reserv.
10036129 21972693 PMID: 11976905

Visualisation of hyaluronan and hyaluronan-binding proteins within ovine vertebral cartilages using biotinylated aggrecan G1-link complex and biotinylated hyaluronan oligosaccharides.

Apr 2002

... proteins (HABPs) in ovine vertebral tissues using biotinylated HA oligosaccharides (bHA oligos) as novel affinity **probes** and to compare this with the distribution of tissue HA visualised using biotinylated aggrecan G1...

... in hypertrophic cells, which also contained intracellular HA. Monolayer cultures of ovine annulus fibrosus and **nucleus pulposus** cells rapidly internalised the bHA oligo affinity probe which was subsequently visualised by indirect fluorescence...

3/6,K/3

DIALOG(R)File 155:(c) format only 2003 The Dialog Corp. All rts. reserv.
10014964 21948036 PMID: 11950957

Expression of chondrocyte markers by cells of normal and degenerate intervertebral discs.

Apr 2002

... was performed for the chondrocytic markers Sox9 and collagen II using (35)S labelled cDNA **probes**. Aggrecan was located by immunohistochemistry, using the monoclonal antibody HAG7E1, and visualised with an avidin...

... mRNA, and strong staining for the aggrecan protein were seen for the cells of the **nucleus pulposus** (NP), but reactions were weak or absent over the cells of the annulus fibrosus (AF...

3/6,K/4

DIALOG(R)File 155:(c) format only 2003 The Dialog Corp. All rts. reserv.
07613432 93068512 PMID: 1440000

Effect of cervical spine motion on the neuroforaminal dimensions of human cervical spine.

Oct 1992

... impingement within a stenotic neuroforamen is a common sequela of cervical degenerative arthritis and herniated **nucleus pulposus**. Understanding of the effects of cervical position on foraminal size is important in the assessment...

... of C5, C6, and C7 were directly measured using a set of finely graded circular probes. Compared to the foraminal diameter at the neutral position, there were statistically significant reductions in...

7/6,K/1

DIALOG(R) File 155:(c) format only 2003 The Dialog Corp. All rts. reserv.
06718371 90344406 PMID: 2383450

Automated percutaneous lumbar discectomy with and without chymopapain pretreatment versus non-automated discoscopy-monitored percutaneous lumbar discectomy. An experimental study in human cadaver spines.

1990

... modifications are known to date: automated percutaneous lumbar discectomy (APLD) with a 2-mm suction **probe** and non-automated, discoscopy-monitored percutaneous lumbar discectomy with a suction rongeur and a motor...

... in severely degenerated intervertebral discs than the NAPLD procedure, as preexisting gaps within the degenerated **nucleus pulposus** allowed the tissue to shift away from the tip of the 2-mm **probe** and facilitated displacement of the **probe** within the anulus fibrosus. By contrast, the rongeur, which first cuts the material to be...

Descriptors: Intervertebral Disk--surgery--SU; *Intervertebral Disk Displacement-- **therapy** --TH; Chymopapain-- **therapeutic** use--TU; Combined Modality **Therapy** ; Equipment Design; Intervertebral Disk Chemolysis; Intervertebral Disk Displacement--surgery--SU; Lumbar Vertebrae--surgery--SU; Suction...

File 155:MEDLINE(R) 1966-2003/Jun W5

Set	Items	Description
S1	29384	DISK? ? OR DISK? ? OR INTRADISC? OR INTRADISK?
S2	1138	NUCLEUS()PULPOSUS
S3	140753	PROBE? ?
S4	1639090	TWO
S5	345058	SECOND
S6	2611364	2
S7	1016	S1 AND S2
S8	1916	S4(2W)S3
S9	173	S5(2W)S3
S10	1225	S6(2W)S3
S11	2	S7 AND S8:S10
S12	2	RD (unique items)

12/7/1

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2003 The Dialog Corp. All rts. reserv.

06718371 90344406 PMID: 2383450

Automated percutaneous lumbar discectomy with and without chymopapain pretreatment versus non-automated discoscopy-monitored percutaneous lumbar discectomy. An experimental study in human cadaver spines.

Pfeiffer M; Schafer T; Griss P; Mennel H D; Arndt D; Henkel K

Department of Orthopedic Surgery, University of Marburg/Lahn, Federal Republic of Germany.

Archives of orthopaedic and trauma surgery (GERMANY, WEST) 1990, 109 (4) p211-6, ISSN 0936-8051 Journal Code: 9011043

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Percutaneous lumbar discectomy has gained growing interest during recent years as an alternative to open surgery for protrusions and non-sequestered subligamentous intervertebral disc herniations. As a less invasive method it competes with chemonucleolysis. At least two modifications are known to date: automated percutaneous lumbar discectomy (APLD) with a 2 -mm suction **probe** and non-automated, discoscopy-monitored percutaneous lumbar discectomy with a suction rongeur and a motor-driven shaver (NAPLD). In this study these two methods are compared for the amount of material extracted, dependence upon the degree of degeneration of the disc and intrinsic technical problems, using 20 human cadaver lumbar specimens for experimental testing. Total nucleotomy was not possible with either method. APLD yielded significantly less material and proved to be less effective in severely degenerated intervertebral discs than the NAPLD procedure, as preexisting gaps within the degenerated **nucleus pulposus** allowed the tissue to shift away from the tip of the 2 -mm **probe** and facilitated displacement of the probe within the annulus fibrosus. By contrast, the rongeur, which first cuts the material to be removed and then carries it away by suction, was much more effective. Further data to support the advantages of non-automated percutaneous nucleotomy are discussed. Pretreatment of the disc with chymopapain did not result in a higher yield of nucleus material when combined with APLD.

Record Date Created: 19900917

Record Date Completed: 19900917

12/7/2

DIALOG(R)File 155:MEDLINE(R)

(c) format only 2003 The Dialog Corp. All rts. reserv.

05390049 87068408 PMID: 3786751

Automated percutaneous diskectomy: initial patient experience. Work in progress

Onik G; Maroon J; Helms C; Schweigel J; Mooney V; Kahanovitz N; Day A; Morris J; McCulloch J A; Reicher M

Radiology (UNITED STATES) Jan 1987, 162 (1 Pt 1) p129-32, ISSN 0033-8419 Journal Code: 0401260

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

A new method has been developed for percutaneously decompressing herniated lumbar **disks**. The method entails gaining access to the **disk** space through the use of an introduction system and a cannula. A 2-mm aspiration **probe** called a Nucleotome is then placed through the cannula into the **disk** space, and the **nucleus pulposus** is aspirated. Thirty-six patients have undergone the procedure, with a successful result in 31. There were no significant complications encountered, and the procedure is now being done on an outpatient basis. These preliminary results indicate that automated percutaneous diskectomy has the potential to replace laminectomy in the treatment of uncomplicated herniated **disks**.

Record Date Created: 19870121

Record Date Completed: 19870121

File 5: Biosis Previews(R) 1969-2003/Jun W5
File 73: EMBASE 1974-2003/Jun W4
File 34: SciSearch(R) Cited Ref Sci 1990-2003/Jun W5
File 434: SciSearch(R) Cited Ref Sci 1974-1989/Dec
File 144: Pascal 1973-2003/Jun W3
File 6: NTIS 1964-2003/Jun W5
File 2: INSPEC 1969-2003/Jun W4
File 8: Ei Compendex(R) 1970-2003/Jun W4
File 99: Wilson Appl. Sci & Tech Abs 1983-2003/May
File 65: Inside Conferences 1993-2003/Jun W5
File 95: TEME-Technology & Management 1989-2003/Jun W3
File 94: JICST-EPlus 1985-2003/Jun W4
File 35: Dissertation Abs Online 1861-2003/Jun

Set	Items	Description
S1	345375	DISK? ? OR DISK? ? OR INTRADISC? OR INTRADISK?
S2	3863	NUCLEUS() PULPOSUS
S3	889906	PROBE? ?
S4	9886409	TWO
S5	2255959	SECOND
S6	16219005	2
S7	2068	S1 AND S2
S8	4002	S4() S3
S9	496	S5() S3
S10	1489	S6() S3
S11	0	S7 AND S8:S10
S12	11275	S4(2W) S3
S13	1147	S5(2W) S3
S14	6855	S6(2W) S3
S15	4	S7 AND S12:S14
S16	3	RD (unique items)

16/6/2 (Item 2 from file: 5)
05588631 BIOSIS NO.: 000083061771
AUTOMATED PERCUTANEOUS DISCECTOMY INITIAL PATIENT EXPERIENCE
1987

16/6/3 (Item 1 from file: 73)
04339752 EMBASE No: 1990227815
Automated percutaneous lumbar discectomy with and without chymopapain pretreatment versus non-automated discoscopy-monitored percutaneous lumbar discectomy. An experimental study in human cadaver spines
1990

16/7/1 (Item 1 from file: 5)
DIALOG(R) File 5: Biosis Previews(R)
(c) 2003 BIOSIS. All rts. reserv.
06265123 BIOSIS NO.: 000086099306
AUTOMATED PERCUTANEOUS LUMBAR DISCECTOMY
AUTHOR: VANHOVE J P
AUTHOR ADDRESS: CHIRURGIEN ORTHOPEDIQUE, INST. MED. EDITH CAVELL, 1180 BRUXELLES.
JOURNAL: REV MED BRUX NOUV SER 9 (5). 1988. 278-279. 1988
FULL JOURNAL NAME: Revue Medicale de Bruxelles Nouvelle Serie
CODEN: RMBRD
RECORD TYPE: Abstract
LANGUAGE: FRENCH

ASRC Searcher: Jeanne Horngan
Serial 10/087856
July 3, 2003

6

ABSTRACT: A new method has been developed for decompressing herniated lumbar **disks** . The method consists of an introduction system and a 2 mm aspiration **probe** called a "Nucleotome". The probe is placed into the **disk** space, and the **nucleus pulposus** is aspirated.

File 98:General Sci Abs/Full-Text 1984-2003/May
File 9:Business & Industry(R) Jul/1994-2003/Jul 01
File 16:Gale Group PROMT(R) 1990-2003/Jul 02
File 160:Gale Group PROMT(R) 1972-1989
File 148:Gale Group Trade & Industry DB 1976-2003/Jun 30
File 621:Gale Group New Prod.Annou.(R) 1985-2003/Jun 30

Set	Items	Description
S1	390791	DISK? ? OR DISK? ? OR INTRADISC? OR INTRADISK?
S2	68	NUCLEUS()PULPOSUS
S3	136452	PROBE? ?
S4	6270231	TWO
S5	2890954	SECOND
S6	7320359	2
S7	23	S1(S)S2
S8	434	S4()S3
S9	103	S5()S3
S10	234	S6()S3
S11	0	S7(S)S8:S10
S12	0	S1 AND S2 AND S8:S10

File 149:TGG Health&Wellness DB(SM) 1976-2003/Jun W4
File 636:Gale Group Newsletter DB(TM) 1987-2003/Jul 01
File 441:ESPICOM Pharm&Med DEVICE NEWS 2003/Jun W5
File 444:New England Journal of Med. 1985-2003/Jul W1
File 20:Dialog Global Reporter 1997-2003/Jul 02

Set	Items	Description
S1	125758	DISK? ? OR DISK? ? OR INTRADISC? OR INTRADISK?
S2	145	NUCLEUS()PULPOSUS
S3	183247	PROBE? ?
S4	8037409	TWO
S5	3404028	SECOND
S6	6539239	2
S7	326	S4()S3
S8	209	S6()S3
S9	159	S5()S3
S10	209	S6()S3
S11	0	S1(S)S2(S)S7:S9
S12	0	S1 AND S2 AND S7:S9
S13	1320	S4(2W)S3
S14	345	S5(2W)S3
S15	781	S6(2W)S3
S16	0	S1 AND S2 AND S13:S15

File 155:MEDLINE(R) 1966-2003/Jun W5

Set	Items	Description
S1	1159	(NUCLEUS OR NUCLEI) (N) (PULPOSUS OR GELATINOSUS OR GELATINO- US) OR VERTEBRAL() PULP
S2	0	(FIBROCARILAGE OR CARTILAGE) (2N) (CENTER OR CENTRAL) (2W) (D- ISK OR DISC)
S3	48616	DISC OR DISK
S4	135333	PROBE OR PROBES
S5	1639090	TWO
S6	345058	SECOND
S7	2611364	2
S8	161045	ANOTHER
S9	370169	MULTIPLE
S10	310	PLURALITY
S11	1070	S1 AND S3
S12	658	S5() S4
S13	78	S6() S4
S14	259	S7() S4
S15	37	S8() S4
S16	183	S9() S4
S17	0	S10() S4
S18	0	S10(2W) S4
S19	0	S11 AND S12:S16
S20	1893	S5(2W) S4
S21	173	S6(2W) S4
S22	1174	S7(2W) S4
S23	89	S8(2W) S4
S24	316	S9(2W) S4
S25	2	S11 AND S20:S24 [duplicates]

File 155:MEDLINE(R) 1966-2003/Jun W5
File 5:Biosis Previews(R) 1969-2003/Jun W5
File 73:EMBASE 1974-2003/Jun W5
File 34:SciSearch(R) Cited Ref Sci 1990-2003/Jun W5
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
File 144:Pascal 1973-2003/Jun W3
File 6:NTIS 1964-2003/Jun W5
File 2:INSPEC 1969-2003/Jun W4
File 8:Ei Compendex(R) 1970-2003/Jun W4
File 99:Wilson Appl. Sci & Tech Abs 1983-2003/May
File 65:Inside Conferences 1993-2003/Jun W5
File 35:Dissertation Abs Online 1861-2003/Jun
File 94:JICST-EPlus 1985-2003/Jun W4
File 95:TEME-Technology & Management 1989-2003/Jun W3

Set	Items	Description
S1	5093	(NUCLEUS OR NUCLEI) (N) (PULPOSUS OR GELATINOSUS OR GELATINO- US) OR VERTEBRAL() PULP
S2	0	(FIBROCARILAGE OR CARTILAGE) (2N) (CENTER OR CENTRAL) (2W) (D- ISK? ? OR DISC? ?)
S3	551121	DISC? ? OR DISK? ?
S4	961154	PROBE OR PROBES
S5	11526860	TWO
S6	2601313	SECOND
S7	18832475	2
S8	1000983	ANOTHER
S9	2333090	MULTIPLE
S10	13825	PLURALITY
S11	4646	S5()S4
S12	258	6()S4
S13	168	7()S4
S14	140	9()S4
S15	1356	10(2W)S4
S16	569	S6()S4
S17	1581	S7()S4
S18	220	S8()S4
S19	1204	S9()S4
S20	35	S10(2W)S4
S21	8110	S11 OR S16:S20
S22	0	S1 AND S21
S23	40	S3 AND S21
S24	23	RD (unique items)
S25	2050	INTRADISC?? OR INTRADISK??
S26	0	S24 AND S25
S27	0	S24/2003
S28	32	S3(S)S21
S29	19	S24 AND S28
S30	19	Sort S29/ALL/PD,D
S31	19	Sort S29/ALL/PY,D [not relevant]

File 98:General Sci Abs/Full-Text 1984-2003/May
 File 9:Business & Industry(R) Jul/1994-2003/Jul 02
 File 16:Gale Group PROMT(R) 1990-2003/Jul 03
 File 160:Gale Group PROMT(R) 1972-1989
 File 148:Gale Group Trade & Industry DB 1976-2003/Jul 01
 File 621:Gale Group New Prod. Annou. (R) 1985-2003/Jul 01
 File 149:TGG Health&Wellness DB(SM) 1976-2003/Jun W4
 File 636:Gale Group Newsletter DB(TM) 1987-2003/Jul 02
 File 441:ESPICOM Pharm&Med DEVICE NEWS 2003/Jun W5
 File 20:Dialog Global Reporter 1997-2003/Jul 03
 File 444:New England Journal of Med. 1985-2003/Jul W1

Set	Items	Description
S1	216	(NUCLEUS OR NUCLEI) (N) (PULPOSUS OR GELATINOSUS OR GELATINO- US) OR VERTEBRAL() PULP
S2	0	(FIBROCARILAGE OR CARILAGE) (2N) (CENTER OR CENTRAL) (2W) (D- ISK? ? OR DISC? ?)
S3	815613	DISC? ? OR DISK? ?
S4	300826	PROBE OR PROBES
S5	14312399	TWO
S6	6297334	SECOND
S7	13865443	2
S8	6020636	ANOTHER
S9	1608438	MULTIPLE
S10	7932	PLURALITY
S11	756	S5()S4
S12	261	S6()S4
S13	437	S7()S4
S14	356	S8()S4
S15	361	S9()S4
S16	0	S10(2W)S4
S17	4	S11:S15(10N) (S1 OR S3)
S18	4	RD (unique items)
S19	2549	S5(2W)S4
S20	598	S6(2W)S4
S21	1646	S7(2W)S4
S22	680	S8(2W)S4
S23	611	S9(2W)S4
S24	5873	S19:S23
S25	32	(S1 OR S3) (S)S19:S23
S26	0	S1(S)S25
S27	1	S25/2003
S28	31	S25 NOT S27
S29	27	RD (unique items) [not relevant]

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200342

File 347:JAPIO Oct 1976-2003/Feb(Updated 030603)

File 371:French Patents 1961-2002/BOPI 200209

Set	Items	Description
S1	101	(NUCLEUS OR NUCLEI) (N) (PULPOSUS OR GELATINOSUS OR GELATINO-US) OR VERTEBRAL() PULP
S2	0	(FIBROCARILAGE OR CARTILAGE) (2N) (CENTER OR CENTRAL) (2W) (D-ISK? ? OR DISC? ?)
S3	582842	DISC? ? OR DISK? ?
S4	115433	PROBE OR PROBES
S5	2467318	TWO
S6	1602051	SECOND
S7	9379392	2
S8	582533	ANOTHER
S9	334568	MULTIPLE
S10	442595	PLURALITY
S11	8	S1 AND S4
S12	1073	S5()S4
S13	801	S6()S4
S14	287	S7()S4
S15	137	S8()S4
S16	224	S9()S4
S17	701	S10(2W)S4
S18	0	S11 AND S12:S17
S19	51	S3 AND S12:S17
S20	4490	IC=A61B-018
S21	0	S19 AND S20
S22	8183	LESION?
S23	0	S19 AND S22
S24	3042	S5:S6(2W)S4
S25	2821	S7:S9(2W)S4
S26	0	S11 AND S24:S25

11/7/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015310843

WPI Acc No: 2003-371778/200335

Treating target tissue, e.g. nucleus pulposus tissue, within inter-vertebral disc, by delivering preheated fluid to void formed proximate to target tissue

Patent Assignee: ARTHROCARE CORP (ARTH-N)

Inventor: HOVDA D C; WOLOSZKO J

Number of Countries: 100 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200324506	A2	20030327	WO 2002US29469	A	20020916	200335 B

Priority Applications (No Type Date): US 2001322015 P 20010914

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200324506	A2	E	148	A61M-000/00	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU
ZA ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB

GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW
Abstract (Basic): WO 200324506 A2

NOVELTY - Treating a target tissue within an inter-vertebral disc comprises forming a void proximate to the target tissue, and delivering a preheated fluid to the void. The fluid is preheated to 45-90degreesC, and a part of the target tissue undergoes contraction due to heat-exchange between the target tissue and fluid.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an electro-surgical apparatus comprising a shaft, an electrode assembly at the shaft distal end, a fluid delivery unit including a fluid delivery tube, and a fluid source unit coupled to the fluid delivery tube and including a fluid reservoir, a temperature control unit coupled to the fluid reservoir, a high-frequency power supply coupled to the electrode assembly, an aspiration unit, a temperature sensor unit, and a temperature display unit.

USE - Used for treating target tissue within an intervertebral disc, particularly for shrinkage, ablation, resection, aspiration and/or hemostatis of tissue and other body structures in open and endoscopic spine surgery.

ADVANTAGE - The volume of the disc is decreased and discogenic pain is alleviated.

pp; 148 DwgNo 0/44

Derwent Class: B07; P34; S05

International Patent Class (Main): A61M-000/00

11/7/3 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014385585 **Image available**

WPI Acc No: 2002-206288/200226

Spinal disorder treatment apparatus for advancing and retarding medical instrument within introducer device to area of vertebra disc intended for treatment

Patent Assignee: ARTHROCARE CORP (ARTH-N)

Inventor: EGGERS P E; HOVDA D C; MARTINI B; ORMSBY T C; QUACKENBUSH J J;

SHARPS L; THAPLIYAL H V; WOLOSZKO J

Number of Countries: 094 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200211635	A1	20020214	WO 2001US15728	A	20010515	200226 B
AU 200161637	A	20020218	AU 200161637	A	20010515	200244
EP 1309282	A1	20030514	EP 2001935554	A	20010515	200333
			WO 2001US15728	A	20010515	

Priority Applications (No Type Date): US 2000679394 A 20001003; US

2000224107 P 20000809; US 2000676194 A 20000928

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200211635 A1 E 141 A61B-018/14

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP
KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT
RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200161637 A A61B-018/14 Based on patent WO 200211635

EP 1309282 A1 E A61B-018/14 Based on patent WO 200211635

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
LI LT LU LV MC MK NL PT RO SE SI TR

Abstract (Basic): WO 200211635 A1

NOVELTY - The shaft (902) of a **probe** (900) is inserted to the **nucleus pulposus** of a disc with at least one fissure in the annular using an introducer needle (928) to obtain a minimally invasive percutaneous procedure. The shaft includes an active electrode (910) on the distal end (902a) that can be rotated through 180 degrees in order to scan a larger volume of the pulposus.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

- (1) an electrosurgical **probe** and introducer needle combination;
- (2) an electrode for an electrosurgical **probe** ;
- (3) a method of treating an inter-vertebral disc.

USE - Treatment of spinal disorders using adjustable electrode.

ADVANTAGE - Achieving minimally invasive treatment.

DESCRIPTION OF DRAWING(S) - The drawing shows translation of a curved shaft of an electrosurgical **probe** .

Probe (900)

Shaft (902)

Electrode (910)

pp; 141 DwgNo 37/44

Derwent Class: P31; S05

International Patent Class (Main): A61B-018/14

11/7/4 (Item 4 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014153518 **Image available**

WPI Acc No: 2001-637737/200173

Electromagnetic energy delivering device for treating intervertebral disc abnormalities, has functional elements located at distal end of catheter for delivering energy to intervertebral disc

Patent Assignee: ORATEC INTERVENTIONS INC (ORAT-N)

Inventor: ASHLEY J E; SAAL J; SAAL J A; SHARKEY H R

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6258086	B1	20010710	US 9629600	P	19961023	200173 B
			US 9629602	P	19961023	
			US 9629734	P	19961023	
			US 9629735	P	19961023	
			US 9745941	P	19970508	
			US 9747818	P	19970528	
			US 9747820	P	19970528	
			US 9747841	P	19970528	
			US 9747848	P	19970528	
			US 97881525	A	19970624	
			US 97881527	A	19970624	
			US 97881692	A	19970624	
			US 97881693	A	19970624	
			US 97881694	A	19970624	
			US 9878545	P	19980319	
			US 99272806	A	19990319	

Priority Applications (No Type Date): US 99272806 A 19990319; US 9629600 P 19961023; US 9629602 P 19961023; US 9629734 P 19961023; US 9629735 P 19961023; US 9745941 P 19970508; US 9747818 P 19970528; US 9747820 P

19970528; US 9747841 P 19970528; US 9747848 P 19970528; US 97881525 A
19970624; US 97881527 A 19970624; US 97881692 A 19970624; US 97881693 A
19970624; US 97881694 A 19970624; US 9878545 P 19980319

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6258086	B1	30	A61B-018/18		Provisional application US 9629600
					Provisional application US 9629602
					Provisional application US 9629734
					Provisional application US 9629735
					Provisional application US 9745941
					Provisional application US 9747818
					Provisional application US 9747820
					Provisional application US 9747841
					Provisional application US 9747848
					CIP of application US 97881525
					CIP of application US 97881527
					CIP of application US 97881692
					CIP of application US 97881693
					CIP of application US 97881694
					Provisional application US 9878545
					CIP of patent US 5980504
					CIP of patent US 6007570
					CIP of patent US 6073051
					CIP of patent US 6095149
					CIP of patent US 6122549

Abstract (Basic): US 6258086 B1

NOVELTY - A catheter has a handle (306) and a **probe (316) at its proximal and distal ends respectively**. Functional elements are located at the distal end for delivering energy to an intervertebral disc. An activation element is located at the distal end for prearranging the catheter to adopt an arcuate shape within the intervertebral disc.

DETAILED DESCRIPTION - An **INDEPENDENT CLAIM** is also included for catheter for delivering energy to an intervertebral disc.

USE - Used in the treatment of intervertebral disc abnormalities like morphologic, degenerative discs having localized tears or fissures in the annulus fibrosis, localized disc herniations with contained or escaped extrusions and chronic circumferential bulging disc.

ADVANTAGE - Delivers sufficient electromagnetic energy to disc, to change its biochemical, neurophysiologic and/or biomechanical properties without removing and/or vaporizing the disc material positioned adjacent to the energy delivery device positioned in **nucleus pulposus** and hence degenerative discs with tears or fissures are treated non-destructively.

DESCRIPTION OF DRAWING(S) - The figures show a superior cross sectional view of the required posterior, and the surgical steps connected with the insertion of catheter.

Handle (306)

Probe (316)

pp; 30 DwgNo 1D, 4D/14

Derwent Class: P31; S05

International Patent Class (Main): A61B-018/18

11/7/5 (Item 5 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014073470 **Image available**

WPI Acc No: 2001-557683/200162

Intervertebral disc accessing apparatus comprises a catheter having lumen, and guide wire capable of navigating itself within intradiscal section of intervertebral disc to selected section of disc

Patent Assignee: ORATEC INTERVENTIONS INC (ORAT-N); ASHLEY J (ASHL-I);

FARIABI S (FARI-I); SAAL J (SAAL-I); SHARKEY H R (SHAR-I)

Inventor: ASHLEY J; FARIABI S; SAAL J; SHARKEY H; SHARKEY H R

Number of Countries: 095 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200162168	A2	20010830	WO 2001US5946	A	20010223	200162 B
AU 200143264	A	20010903	AU 200143264	A	20010223	200202
US 20020019626	A1	20020214	US 2000185221	A	20000225	200214
			US 2001792628	A	20010222	
			US 2001884859	A	20010618	
US 20020022830	A1	20020221	US 2000185221	A	20000225	200221
			US 2001792628	A	20010222	
EP 1259167	A2	20021127	EP 2001916210	A	20010223	200302
			WO 2001US5946	A	20010223	

Priority Applications (No Type Date): US 2001792628 A 20010222; US

2000185221 P 20000225; US 2001884859 A 20010618

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200162168 A2 E 61 A61B-017/88

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP
KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT
RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200143264 A A61B-017/88 Based on patent WO 200162168

US 20020019626 A1 A61B-018/04 Provisional application US 2000185221
Cont of application US 2001792628

US 20020022830 A1 A61B-018/04 Provisional application US 2000185221
EP 1259167 A2 E A61B-017/00 Based on patent WO 200162168

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
LI LT LU LV MC MK NL PT RO SE SI TR

Abstract (Basic): WO 200162168 A2

NOVELTY - An intervertebral disc accessing apparatus comprises a catheter having a lumen and a guide wire configured to be positioned within and moved relative to the lumen of the catheter. The guide wire is capable of navigating itself within an intradiscal section of the intervertebral disc to a selected section of the disc. The catheter is capable of being advanced relative to the guide wire.

DETAILED DESCRIPTION - An intervertebral disc accessing apparatus comprises a catheter having a lumen and a guide wire having a distal portion and a proximal portion. The guide wire can be positioned within and moved relative to the lumen of the catheter. It is capable of navigating itself within an intradiscal section of the intervertebral disc to a selected section of the disc. The catheter is capable of being advanced relative to the guide wire so that the catheter follows a path of the guide wire within the intradiscal section of the disc adjacent the inner wall of the annulus of the disc to the selected section.

An INDEPENDENT CLAIM is also included for a method of treating an intervertebral disc comprising:

(a) causing a guide wire to navigate itself within an intradiscal section of the intervertebral disc adjacent an inner wall of an annulus of the disc to a selected section of the disc;

(b) manipulating a catheter which has a guide wire positioned within a lumen of the catheter; and

(c) advancing the catheter relative to the guide wire so that the catheter follows a path of the guide wire within the intradiscal section of the disc adjacent the inner wall of the annulus of the disc to the selected section.

USE - For accessing a selected section of an intervertebral disc.

ADVANTAGE - The inventive apparatus is simple and is maneuverable in accessing the interior of an intervertebral disc. It is capable of advancing and navigating through the **nucleus pulposus** and along the annulus fibrosus to provide access to the site of the annular fissure. The apparatus provides diagnostic viewing, energy delivery, mechanical manipulation, removal, or addition of material, delivery of medicament and pain management within the intervertebral disc.

DESCRIPTION OF DRAWING(S) - The figure shows a superior cross-sectional anatomical view of a cervical disc and associated vertebral structure.

Nucleus pulposus (120)

Annulus fibrosus (122)

Posterior lateral (136)

Posterior medial (138)

pp; 61 DwgNo 1A/12

Derwent Class: B07; P31

International Patent Class (Main): A61B-017/00; A61B-017/88; A61B-018/04

International Patent Class (Additional): A61B-018/14; A61B-018/20

11/7/6 (Item 6 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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013858993 **Image available**

WPI Acc No: 2001-343206/200136

Electrosurgical system for treating a tear or fissure in an intervertebral disc, uses a probe with electrodes to supply high frequency electrical energy and conductive fluid to the location

Patent Assignee: ARTHROCARE CORP (ARTH-N)

Inventor: ALLEYNE N; EGGERS P E; HOVDA D C; THAPLIYAL H V; HOVDA D

Number of Countries: 094 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200126570	A1	20010419	WO 2000US28267	A	20001011	200136 B
AU 200113321	A	20010423	AU 200113321	A	20001011	200147
US 6468274	B1	20021022	US 96690159	A	19960716	200273
			US 9826698	A	19980220	
			US 9826851	A	19980220	
			US 9854323	A	19980402	
			US 99268616	A	19990315	
			US 99295687	A	19990421	
			US 99316472	A	19990521	
			US 99159244	P	19991013	
			US 2000689264	A	20001011	

Priority Applications (No Type Date): US 99159244 P 19991013; US 96690159 A 19960716; US 9826698 A 19980220; US 9826851 A 19980220; US 9854323 A 19980402; US 99268616 A 19990315; US 99295687 A 19990421; US 99316472 A

19990521; US 2000689264 A 20001011

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200126570 A1 E 97 A61B-018/14

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP
KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT
RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

AU 200113321 A A61B-018/14 Based on patent WO 200126570

US 6468274 B1 A61B-018/14 CIP of application US 96690159

CIP of application US 9826698

CIP of application US 9826851

CIP of application US 9854323

CIP of application US 99268616

CIP of application US 99295687

CIP of application US 99316472

Provisional application US 99159244

CIP of patent US 5902272

CIP of patent US 6063019

CIP of patent US 6159208

CIP of patent US 6203542

CIP of patent US 6264650

CIP of patent US 6277112

Abstract (Basic): WO 200126570 A1

NOVELTY - Electrosurgical system (11) includes a **probe** (10) connected to a power supply (28) for providing a high frequency voltage to a target area. Fluid source (21) may also be connected via the **probe** to supply electrically conducting fluid (50) to the target area, so that the RF energy is used to heat the fluid surrounding the damaged tissue rather than the tissue directly.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of treating a fissure in an intervertebral disc.

USE - For selectively applying electrical energy to a target location within or on a patient's body, particularly including tissue or other body structures in the spine, these procedures including laminectomy/disectomy procedures for treating herniated disks, decompressive laminectomy for stenosis in the lumbosacral and cervical spine, medial facetectomy, posterior lumbosacral and cervical spine fusions, treatment of scoliosis associated with vertebral disease, foraminotomies to remove the roof of the intervertebral foramina to relieve nerve root compression and anterior cervical and lumbar discectomies.

ADVANTAGE - The **probe** can be positioned so that the high frequency voltage will be directed only at the tissue immediately surrounding the fissure so as to reduce collateral heating and damage to the annulus tissue and **nucleus pulposus**. The **probe** may use a **single active electrode or an electrode array** which comprises independently current-limited and/or power-controlled active electrodes to apply electrical energy selectively to the target tissue while limiting unwanted application of energy to surrounding tissue. The **probe** may be positioned using open procedures or minimally invasive ones such as thoracoscopy, arthroscopy, laparoscopy or similar.

DESCRIPTION OF DRAWING(S) - The figure is a perspective view of an electrosurgical system.

Probe (10)
Electrosurgical system (11)
Fluid source (21)
Power supply (28)
Conducting fluid (50)
pp; 97 DwgNo 1/40
Derwent Class: P31; S05
International Patent Class (Main): A61B-018/14

11/7/7 (Item 7 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
008425154 **Image available**
WPI Acc No: 1990-312155/199041
Spinal needle for radiating laser beam into vertebral pulp - has air-escape tube unitarily inserted parallel to spinal needle
Patent Assignee: OSADA RES INST (OSAD-N)
Inventor: KOJIMA T
Number of Countries: 001 Number of Patents: 001
Patent Family:
Patent No Kind Date Applicat No Kind Date Week
US 4959063 A 19900925 US 88244437 A 19880914 199041 B
Priority Applications (No Type Date): JP 88U63175 U 19880512
Abstract (Basic): US 4959063 A

The spinal needle (1) comprises a laser **probe** needle (4) and optical fibre (6). The tip end of the laser **probe** needle (4) is adjusted to be positioned on the inner side of the spinal needle. The tip end of the optical fibre is adjusted to be positioned in the inner side of the laser **probe** needle. The drawing-out of the gas can be facilitated.

The arrow mark A represents a flow-passage communicating with the flow-passage (1a) and the arrow mark B represents another flow-passage communicating with the flow-passage (4a). At the time of flushing, a physiological salt solution flowing in via the flow-passage passes through the flow-passages B and A and flows out through the flow-passage (1a) outside of the spinal needle assembly. A tapered portion (1b) is provided at the tip of the spinal needle. The spinal needle can be thrust easily to decrease the extent of damage to the skin. The outer circumferential portion of the spinal needle excluding the tapered portion is coated with a material (1c) such as ceramic, silicone, teflon etc. It may also be possible to prevent heat from escaping from the living body's tissues through the spinal needle (1).

ADVANTAGE - Can effectively draw out gas generated when **vertebral pulp** is evaporated by radiating laser rays, decreases extent of damage to skin. (6pp dwg.No.6/6)

Derwent Class: P31; S05
International Patent Class (Additional): A61B-017/36

11/7/8 (Item 8 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
001498202
WPI Acc No: 1976-G1122X/197627
Stereotaxic lateral extradural disc puncture appts - uses paper etc sleeves to gauge position cannula guide relative to mid-sagittal plane
Patent Assignee: FRONING E C (FRON-I)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 3964480	A	19760622				197627 B

Priority Applications (No Type Date): US 75569867 A 19750421; US 74511655 A 19741003

Abstract (Basic): US 3964480 A

The stereotaxic fixture comprises a cannula angle guide attached to an offset index, a parallel heading guide with intercept chain attached, and a frame which fixed the guides, allowing rapid and secure position readjustment, and which provides retention of orientation between the guides and the lumbar spine of the patient. The cannula angle guide, offset index, and parallel heading guide adjust for depth of each individual disc, identify optimum skin puncture site, and coordinate three planes of cannula passage, providing a safe stereotaxic control of unobstructed puncture of the nucleus purposes, for injection into the intervertebral disc of radiographic contrast fluids for diagnosis insertion of diagnostic **probes**, and for injection of drugs to decompress the discs by dissolving nucleus mucoproteins to relieve herniated **nucleus pulposus**.

Derwent Class: P31; P34

International Patent Class (Additional): A61B-017/00; A61M-005/00

File 348:EUROPEAN PATENTS 1978-2003/Jun W04

File 349:PCT FULLTEXT 1979-2002/UB=20030626,UT=20030619

Set	Items	Description
S1	242	(NUCLEUS OR NUCLEI) (N) (PULPOSUS OR GELATINOSUS OR GELATINO- US) OR VERTEBRAL() PULP
S2	0	(FIBROCARILAGE OR CARILAGE) (2N) (CENTER OR CENTRAL) (2W) (D- ISK? ? OR DISC? ?)
S3	203587	DISC? ? OR DISC? ?
S4	108333	PROBE OR PROBES
S5	1098348	TWO
S6	939946	SECOND
S7	1614340	2
S8	929038	ANOTHER
S9	339512	MULTIPLE
S10	528818	PLURALITY
S11	20	S1(S) S4
S12	6941	S5:S6(2W) S4
S13	10875	S7:S10(2W) S4
S14	3	S11(S) S12:S13

14/3,AB,K/1 (Item 1 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00996443

METHODS AND APPARATUS FOR TREATING INTERVERTEBRAL DISCS

METHODES ET APPAREIL DE TRAITEMENT DES DISQUES INTERVERTEBRAUX

Patent Applicant/Assignee:

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Patent Applicant/Inventor:

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(Residence), US (Nationality), (Designated only for: US)

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Legal Representative:

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Sunnyvale, CA 94085, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200324506 A2 20030327 (WO 0324506)

Application: WO 2002US29469 20020916 (PCT/WO US0229469)

Priority Application: US 2001322015 20010914

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU

CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP

KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO

RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 43817

English Abstract

Apparatus and methods for treating a target tissue by delivering a fluid
at a defined temperature to a patient's body. An apparatus of the
invention includes a fluid delivery unit for delivering fluid in at least

close proximity to the target tissue, an aspiration unit for withdrawing the fluid, and a fluid source unit for providing the fluid at the defined temperature. A method of the invention includes forming a void in at least close proximity to the target tissue, and circulating a preheated fluid through the void, wherein the target tissue undergoes adjustment from body temperature to a treatment temperature due to heat exchange between the fluid and the target tissue.

Fulltext Availability:

Detailed Description

Detailed Description

... may comprise, for example, a fluid delivery device, a return electrode, an aspiration himen, a **second** electrosurgical **probe**, or an endoscope ...least the distal end portion of each introducer 928 and 938, is positioned within the **nucleus pulposus**. Thereafter, shaft 902" of electrosurgical **probe** 900' may be inserted through at least one of introducers 928, 938, to treat the intervertebral disc. Typically, shaft 902" of **probe** 900' has an outer diameter no larger than about 7 French (1 Fr: .33 mm...

14/3,AB,K/2 (Item 2 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00877959

APPARATUS FOR TREATMENT OF SPINAL DISORDERS

APPAREILS POUR LE TRAITEMENT DES TROUBLES DE LA COLONNE VERTEBRALE

Patent Applicant/Assignee:

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US, US (Residence), US (Nationality)

Inventor(s):

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ORMSBY Theodore C, 2357 Dubois Street, Milpitas, CA 95035, US,
QUACKENBUSH John J, 2441 Austin Place, Santa Clara, CA 95050, US,
MARTINI Brian, 25 Harrison Way, Menlo Park, CA 94025, US,
THAPLIYAL Hira V, 1192 Volti Lane, Los Altos, CA 94024, US,
EGGERS Philip E, 5366 Reserve Drive, Dublin, OH 43017, US,

Legal Representative:

RAFFLE John T (agent), ArthroCare Corporation, 595 N. Pastoria Avenue,
Sunnyvale, CA 94086-2936, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200211635 A1 20020214 (WO 0211635)

Application: WO 2001US15728 20010515 (PCT/WO US0115728)

Priority Application: US 2000224107 20000809; US 2000676194 20000928; US
2000679394 20001003

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ

DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ

LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG

SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 38679

English Abstract

Apparatus and methods for advancing and retracting a medical instrument within an introducer device, wherein the instrument includes a distal tip, a distal linear portion (909), a first distal curve (924), a substantially linear inter-curve portion (925), and a second proximal curve (926). The length of the distal linear portion and the angle of the first curve determine the position of the distal tip within a lumen of the introducer device, such that the distal tip occupies a substantially central transverse location within the lumen and the distal tip avoids contact with the introducer device. The length of the inter-curve portion and the angle of the second curve determine deflection of the distal tip from a longitudinal axis of the shaft when the second curve is extended distally beyond a distal end of the introducer device. Also, methods and apparatus for treating an intervertebral disc by ablation of disc tissue are disclosed.

Fulltext Availability:

Detailed Description

Detailed Description

... may comprise, for example, a fluid delivery device, a return electrode, an aspiration lumen, a **second** electrosurgical **probe**, or an endoscope having an optical fiber component. Each of introducer needle 928 and ancillary...

...least the distal end portion of each introducer 928 and 938, is positioned within the **nucleus pulposus**. Thereafter, shaft 902" of electrosurgical **probe** 900 may be inserted through at least one of introducers 928, 938, to treat the intervertebral disc. Typically, shaft 902" of **probe** 900 has an outer diameter no larger than about 7 French (1 Fr: .33 mm...)

14/3,AB,K/3 (Item 3 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00793414

SYSTEMS AND METHODS FOR TREATING SPINAL PAIN

SYSTEMES ET METHODES DE TRAITEMENT DE LA DOULEUR SPINALE

Patent Applicant/Assignee:

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94085-2936, US, US (Residence), US (Nationality)

Inventor(s):

ALLEYNE Neville, 9687 Claiborne Square, La Jolla, CA 92037, US,
HOVDA David, 1900 Miramonte Avenue, Mountain View, CA 94040, US,
THAPLIYAL Hira V, 1192 Volti Lane, Los Altos, CA 94024, US,
EGGERS Philip E, 5366 Reserve Drive, Dublin, OH 43017, US,

Legal Representative:

RAFFLE John T (agent), ArthroCare Corporation, 595 North Pastoria Avenue,
Sunnyvale, CA 94085-2936, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200126570 A1 20010419 (WO 0126570)

Application: WO 2000US28267 20001011 (PCT/WO US0028267)

Priority Application: US 99159244 19991013

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ

DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ

LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG

SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 23950

English Abstract

The present invention provides systems (11) and methods for selectively applying electrical energy to a fissure or tear location within an intervertebral disc. The present invention applies high frequency (RF) electrical energy to one or more active electrodes (58) in the presence of electrically conductive fluid to heat and seal a fissure on an annulus fibrosus. In one aspect of the invention, a method is provided for treating the fissure by applying sufficient electrical energy to the disc tissue to seal the fissure. In one embodiment, the RF energy is directed through the conductive fluid to heat the tissue immediately surrounding the fissure. The RF energy is sufficient to vaporize at least a portion of the fluid in contact with the active electrode. In another embodiment, the electrical current is directed through the tissue to directly heat the annulus tissue. This causes the annulus tissue to contract and seal the fissure. In a specific configuration, a sealant is added to the fissure to enhance the seal.

Fulltext Availability:

Detailed Description

Detailed Description

... a vacuum source (not shown) for coupling to a suction lumen or tube (see Fig. 2) in the **probe** for aspirating the target site. In some procedures, it may also be necessary to retrieve...

...it prevents the fluid from flowing into the patient's body, e.g., into the **nucleus pulposus**, the abdomen or the thoracic cavity. This aspiration should be controlled, however, so that the...

ASRC Searcher: Jeanne Horrigan
Serial 10/087856
July 3, 2003

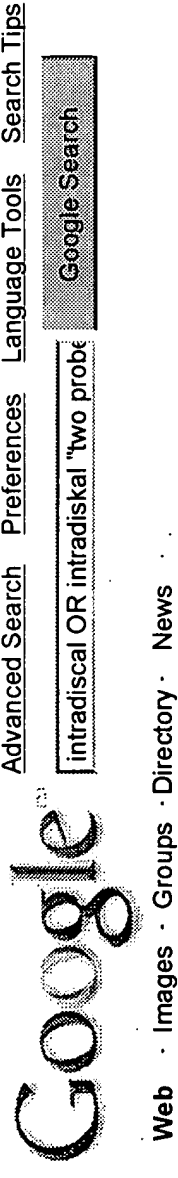
25

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200341

File 347:JAPIO Oct 1976-2003/Feb(Updated 030603)

File 371:French Patents 1961-2002/BOPI 200209

Set	Items	Description
S1	299104	DISK? ? OR DISK? ? OR INTRADISC? OR INTRADISK?
S2	95	NUCLEUS() PULPOSUS
S3	116669	PROBE? ?
S4	2466404	TWO
S5	1601336	SECOND
S6	9375888	2
S7	18	S1 AND S2
S8	1075	S4()S3
S9	803	S5()S3
S10	289	S6()S3
S11	0	S7 AND S8:S10
S12	2072	S4(2W)S3
S13	1213	S5(2W)S3
S14	2233	S6(2W)S3
S15	0	S7 AND S12:S14



Did you mean: intradiscal OR *intradiskal* "two probes"

No standard web pages containing all your search terms were found.

Your search - **intradiscal OR intradiskal "two probes"** - did not match any documents.

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Your search - **"nucleus pulposus" "two probes"** - did not match any documents.

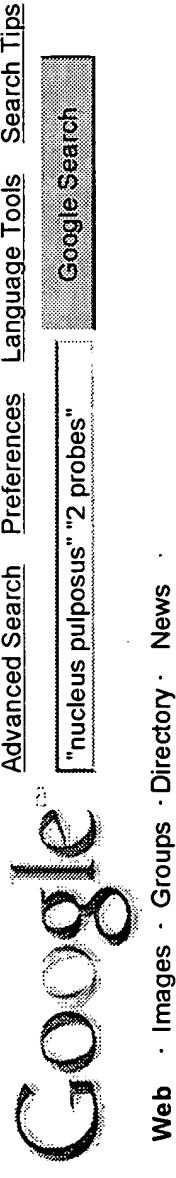
Suggestions:

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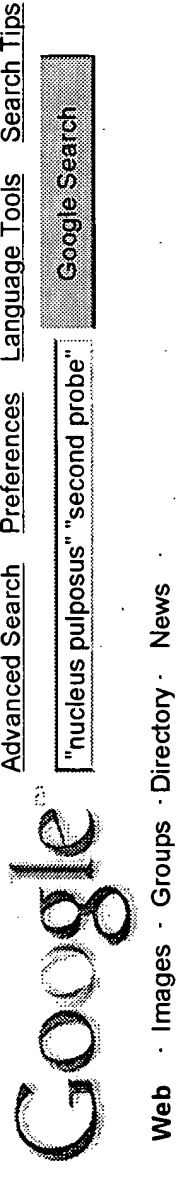
Suggestions:

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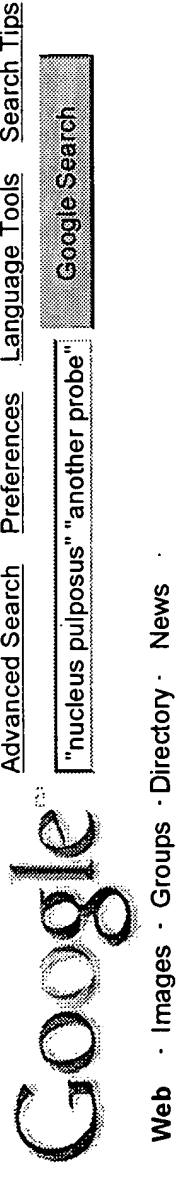
Suggestions:

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File 348:EUROPEAN PATENTS 1978-2003/Jun W04
File 349:PCT FULLTEXT 1979-2002/UB=20030626,UT=20030619
>>>No sets currently exist
[Inventors' names are not listed in these two databases.]

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200341
File 347:JAPIO Oct 1976-2003/Feb(Updated 030603)
File 371:French Patents 1961-2002/BOPI 200209

Set	Items	Description
S1	4	AU='LEUNG M S'
S2	33	AU='SHAH K'
S3	1	AU='BAYLIS F H'
S4	0	S1 AND S2 AND S3
S5	0	S1 AND S3
S6	37	S1:S3
S7	77	LESION? AND (INTRADISC? OR INTRADISK? OR DISC? ? OR DISK? - ?)
S8	1	S6 AND S7
S9	14	AU='LEUNG M'
S10	1	S2 AND S3 AND S9
S11	0	S10 NOT S8

8/7/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX
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014969102 **Image available**
WPI Acc No: 2003-029616/200302

Intradiscal lesioning apparatus has probe whose distal portion is
provided with heating coils that emit energy when distal portion is in
deployed configuration

Patent Assignee: BAYLIS F H (BAYL-I); LEUNG M (LEUN-I); SHAH K (SHAH-I);
BAYLIS MEDICAL CO LTD (BAYL-N)

Inventor: BAYLIS F H ; LEUNG M; SHAH K

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020147444	A1	20021010	US 2001827922	A	20010409	200302 B
US 6562033	B2	20030513	US 2001827922	A	20010409	200335

Priority Applications (No Type Date): US 2001827922 A 20010409

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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US 20020147444	A1		22	A61B-018/04	
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US 6562033	B2			A61B-018/18	
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Abstract (Basic): US 20020147444 A1

NOVELTY - A probe (6) is inserted through the bore of an introducer (5) that provides external surgical access to the nucleus pulposus (3) when inserted through the annulus fibrosus (4). The distal portion (9) of the probe forms at least one loop that remains within the nucleus pulposus without contacting the inner wall, and has heating coils that emit energy when the distal portion is in the deployed configuration.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method for percutaneous treatment of a patient's intervertebral disc .

USE - For treating intervertebral disc disorders such as localized tears or fissures in annulus fibrosus, localized disc herniations, and circumferential bulging of discs .

ADVANTAGE - Delivers sufficient energy to annulus fibrosus to achieve either or both enervation and modification of collagen fibrils

with predictable accuracy. Can be accurately positioned within any portion of nucleus pulposus of any lumbar intervertebral **disc** having variable shape, to deliver energy to any selected area of annulus fibrosus. Can adopt varying configurations within nucleus pulposus to deliver targeted energy to any selected area of annulus fibrosus. Heating coils can be positioned in close proximity to inner wall of annulus fibrosus, without entirely depending on physical contact with inner wall of annulus fibrosus, thereby enabling heating coils to adopt selected configuration.

DESCRIPTION OF DRAWING(S) - The figure is the sectional view through an intervertebral **disc** , and shows the insertion of an introducer with a probe initially entering the nucleus pulposus.

Nucleus pulposus (3)

Annulus fibrosus (4)

Introducer (5)

Probe (6)

Distal portion (9)

pp; 22 DwgNo 2/23

Derwent Class: P31

International Patent Class (Main): A61B-018/04; A61B-018/18

International Patent Class (Additional): A61B-018/18